UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/185,550	11/04/1998	MINORU SEKIGUCHI	8261516JDH	5524
21171 7590 03/05/2007 STAAS & HALSEY LLP		EXAMINER		
SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			HAN, QI	
			ART UNIT	PAPER NUMBER
	.,		2626	
SHORTENED STATUTOR	RY PERIOD OF RESPONSE	MAIL DATE	DELIVER	Y MODE
3 MC	ONTHS	03/05/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

		Application No.	Applicant(s)				
Office Action Summary		09/185,550	SEKIGUCHI, MINORU				
		Examiner	Art Unit				
		Qi Han	2626				
Period fo	The MAILING DATE of this communication app or Reply	ears on the cover sheet with the c	orrespondence address				
A SH WHIC - Exte after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DANSIONS of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. O period for reply is specified above, the maximum statutory period we are to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing ed patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim vill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).				
Status	•						
1)⊠	Responsive to communication(s) filed on 19 De	ecember 2006 and 14 November	<u>2006</u> .				
2a) <u></u> ☐	This action is FINAL . 2b)⊠ This action is non-final.						
3)	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
	closed in accordance with the practice under E	x parte Quayle, 1935 C.D. 11, 45	53 O.G. 213.				
Disposit	ion of Claims	·					
4)⊠	4)⊠ Claim(s) <u>1-3,13 and 15</u> is/are pending in the application.						
,—	4a) Of the above claim(s) is/are withdrawn from consideration.						
5)	5) Claim(s) is/are allowed.						
6)⊠	6)⊠ Claim(s) <u>1-3,13 and 15</u> is/are rejected.						
•	Claim(s) is/are objected to						
8)	Claim(s) are subject to restriction and/or	r election requirement.					
Applicat	ion Papers		,				
9)	The specification is objected to by the Examine	r.					
10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.							
	Applicant may not request that any objection to the	drawing(s) be held in abeyance. See	e 37 CFR 1.85(a).				
11)	Replacement drawing sheet(s) including the correct The oath or declaration is objected to by the Ex						
Priority	under 35 U.S.C. § 119						
	Acknowledgment is made of a claim for foreign ☐ All b) ☐ Some * c) ☐ None of:	priority under 35 U.S.C. § 119(a))-(d) or (f).				
	1. Certified copies of the priority document	s have been received.					
	2. Certified copies of the priority document						
	3. Copies of the certified copies of the prior	•	ed in this National Stage				
* 1	application from the International Bureau See the attached detailed Office action for a list	• • • • • • • • • • • • • • • • • • • •	ad				
`	see the attached detailed Office action for a list	or the certified copies not receive	su.				
Attachmer							
	ce of References Cited (PTO-892) ce of Draftsperson's Patent Drawing Review (PTO-948)	4) ∐ Interview Summary Paper No(s)/Mail D					
3) 🔲 Info	mation Disclosure Statement(s) (PTO/SB/08) er No(s)/Mail Date	5) Notice of Informal F 6) Other:					

Application/Control Number: 09/185,550 Page 2

Art Unit: 2626

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Response to Amendment

3. This communication is responsive to the applicant's amendment filed on 11/14/2006 and RCE filed on 12/19/2006. The applicant(s) amended claims 1, 13 and 15, and cancelled claim 16 (see the amendment: pages 2-4).

Response to Arguments

4. Applicant's arguments filed on 11/14/2006 with respect to the rejection of claims 1-3, 13 and 15 under 35 USC 102/103 (the amendment-remarks: page 5), have been fully considered but are most in view of the new ground(s) of rejection, since the amended claims introduce new issue and/or change the scope of the claims (see detail in the claim rejection below).

Claim Rejections - 35 USC § 103

5. Claims 1-3, 13 and 15 are rejected under 35 U.S.C. 103 (a) as being unpatentable over DAVIS et al. (US 5,177,685) hereinafter referenced as DAVIS in view of WACHTEL (US 5,870,701) and HON et al. (US 5,852,801) hereinafter referenced as HON.

As per claim 1, DAVIS teaches automobile navigation system using real time spoken driving instructions (title), including using (processing) data from a position sensor (col. 1, line 66), comprising:

"storing data groups in a database" and "word representing a characteristic of a corresponding data group is attached to each of said data group, said data groups being obtained by classifying numerical inputs from said sensor directly of after processing" (col. 2, lines 19-43, 'the map database...includes features that affect speed of travel...', 'positions are...stored in the map database...', 'driving instructions generated ...the two issues for spoken directions are what to say and when to say it (data groups)', 'large taxonomy of inter-section types (corresponding to database and including classifying)', 'chooses verbs (words) to indicate (corresponding to attach) the kind (data group) of intersection', 'refer to landmarks and timing ...'; col. 11, line 42 to col. 12, line 31, 'position finding system determine position directly by detecting an external signal' and 'position keeping system estimated the current position from knowledge of an earlier position and the change in position', 'measure the amount of turning...distances,...difference in rotation (numerical inputs)', 'position sensor...includes a displacement sensor and a direction sensor' (classifying inputs));

"outputting" "word attached to the corresponding data group among the data groups stored in said database if the corresponding data group is found to be similar to sensor input,

Application/Control Number: 09/185,550

Art Unit: 2626

when the sensor input is received", (col. 2, lines 35-67, 'spoken direction', 'instruction', 'speech, especially synthetic speech, as an output media', 'utterances be repeatable on demand', 'construct a new utterance with the same intent, but not necessarily the same words, as a previous message', wherein the speech is necessarily associated with (attached to) the database data groups, such as 'chooses verbs' or 'refer to landmarks'; col. 15, lines 61-64, 'instruction-vp—generate a verb phrase' and 'instruction-np—generate a noun phrase' (read on word attached to the corresponding data groups and are similar to sensor input respectively));

"temporarily storing input data from said sensor as data of a new data group after classifying said input data when it is determined that said input data does not belong to any of said groups classified in said database" and "attaching a word to said data of said new group temporarily stored to store said data of new group in said database" (col. 20, lines 54-67, 'able to model the uncertainty of a position', 'errors ...occur if the database is somewhat out date', 'acquires a model of the user automatically...learn the driver's reaction time (necessarily storing it as an input data) by measuring the time', which suggests that at least one input data is classified as reaction time (in a new data group) and is temporarily stored for later use in processing and/or outputting the related spoken instruction).

DAVIS does not explicitly teach that the processed and/or attached word is "a (the) natural language word". However, it is noted that DAVIS discloses 'discourse generator (col. 3, line 22) and 'description function to generate a description of the action...takes inputs specifying the size of the description (brief or long), the tense (past, present or future), and the reference position' (col. 15, lines 26-67), and providing the example sentences for the instructions (col. 16, lines 9-14 and (col. 19, lines 48-50) that are obviously corresponded to natural language words,

Art Unit: 2626

which suggests that the DAVIS' system has capability of implementing functionality as claimed. Therefore, one having ordinary skill in the art at the time the invention was made would have found it obvious to provide discourse generator with specific instructions associating natural language words, as taught by DAVIS himself, for the purpose of providing specific and/or sufficient direction and increasing the driver's confidence for user using the system (DAVIS: col. 15, lines 40-50).

Further, it is noted that DAVIS does not explicitly teach that "a provisional code is temporally attached to a data group stored in the database without a word until a word is provide". However, the feature of providing temporary attached code that associated with certain data group (category) for processing word is well known in the art as evidenced by WACHTEL who, in the same field of endeavor, discloses 'control signal processing method and apparatus having natural language interface capabilities' (title), comprising using 'search code and codes (provisional code) depending upon (attached) the category (data group) of the current word and storing, with each code, the value of a selected argument of the meaning of the current word' and 'removing ... certain previously stored search codes (means that the codes are temporally attached)' (col. 10, lines 27-44) (also see Table 2 and col. 11-12), which suggests that the system has capability of implementing functionality as claimed. Therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to modify DAVIS by providing temporary attached code associating data group (category) for processing word(s), as taught by WACHTEL, for the purpose (motivation) of offering convenient form for further processing and/or enabling the operator to input switching instruction in natural language (WACHTEL: abstract).

In addition, based on broadest reasonable interpretation of the claimed limitation in light of the specification (page 17, lines 10-14), it is noted that DAVIS further discloses that his invention is a 'computer apparatus' having '(computer) programs' and using 'database' (abstract and col. 1, lines 6-67), which necessarily or inherently include providing default codes/values (interpreted as provisional code) for certain variables in data structure of the programs or fields/records of database tables before obtaining the corresponding input word, which suggests that DAVIS' system alone may also satisfy the claimed limitation, in a manner of necessity and/or inherence.

Moreover, it is noted that DAVIS in view of WACHTEL does not explicitly teach the attached word "being input by a user". However, the feature is well known in the art as evidenced by HON who, in the same field of endeavor, discloses 'method and apparatus for automatically invoking a new word module for unrecognized user input' (title), comprising 'the user interface' that 'suggests to a user which unrecognized words may be new words (corresponding to new group)' and 'advises the user to enter (input) words into a new word lexicon (corresponding to database)' (abstract and col. 8, lines 64-67). Therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to modify DAVIS in view WACHTEL by providing a mechanism for entering (inputting) the corresponding word by user, as taught by HON, for the purpose (motivation) of improving the recognition accuracy and/or improving the probability of spotting new words (HON: col. 2, lines 20-26).

As per claim 2, it recites a sensor data processing apparatus with means-plus functions.

The rejection is based on the same reason described for claim 1, because the rejection for claim 1 covers the same or similar limitations or equivalent functionalities as claim 2, wherein, the data

Application/Control Number: 09/185,550

Art Unit: 2626

received/derived from 'the position sensor' (DAVIS: col. 11, line 42 to col. 12, line 67)

corresponds to the claimed "state or state change", and 'instruction-vp—generate a verb phrase'

and 'instruction-np—generate a noun phrase' (DAVIS: col. 15, lines 61-64) corresponds to the

claimed "dynamic characteristic" and "static characteristic".

As per claim 3 (depending on claim 2), DAVIS further teaches "status judging means for

Page 7

judging a status using a certain word attached to a group', (col. 14, line 24 to col. 16, lines 67,

'the acts in the working prototypes...(including judging a status)', 'short description', 'long

description', 'verb phrases', 'specifying direction with landmark', 'a cue is expressed either as a

full sentence ...or a proposed reposition phrase').

As per claim 13, it recites a computer-readable storage medium. The rejection is based

on the same reason described for claim 1, because the rejection for claim 1 covers the same or

similar limitations or equivalent functionalities as claim 13, wherein, the data received from 'the

position sensor' is read on the claimed "unrelated to language".

As per claim 15, it recites a method. The rejection is based on the same reason described

for claim 1, because the rejection for claim 1 covers the same or similar limitations or equivalent

functionalities as claim 15.

Conclusion

6. Please address mail to be delivered by the United States Postal Service (USPS) as

follows:

Mail Stop ____

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

or faxed to: 571-273-8300, (for formal communications intended for entry)

Art Unit: 2626

Or: 571-273-8300, (for informal or draft communications, and please label "PROPOSED" or "DRAFT")

If no Mail Stop is indicated below, the line beginning Mail Stop should be omitted from the address.

Effective January 14, 2005, except correspondence for Maintenance Fee payments, Deposit Account Replenishments (see 1.25(c)(4)), and Licensing and Review (see 37 CFR 5.1(c) and 5.2(c)), please address correspondence to be delivered by other delivery services (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, etc.) as follows:

U.S. Patent and Trademark Office Customer Window, Mail Stop _____ Randolph Building Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qi Han whose telephone numbers is (571) 272-7604. The examiner can normally be reached on Monday through Thursday from 9:00 a.m. to 7:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil, can be reached on (571) 272-7602.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Inquiries regarding the status of submissions relating to an application or questions on the Private PAIR system should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028 between the hours of 6 a.m. and midnight Monday through Friday EST, or by e-mail at: ebc@uspto.gov. For general information about the PAIR system, see http://pair-direct.uspto.gov.

QH/qh February 28, 2007

2/28/07